

## CLAIMS

Please cancel claims 51, 104, 105 and 141-143.

Claims 1-51 (cancelled)

52. (currently amended) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, and a Medium Access Control hardware interface comprising a multiplexer/demultiplexer unit and a plurality of slot allocation units, said multiplexer/demultiplexer unit operatively coupled to said plurality of slot allocation units, The system of claim 51, wherein said transceivers operate according to a Medium Access Control protocol having a time division multiple access frame definition, said protocol structured and configured to operate in aloha mode and time division multiple access mode.

53. (previously presented) The system of claim 52, further comprising a frame definition having a master slot, a command slot, and a plurality of data slots, said master having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol.

54. (previously presented) The system of claim 53, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses.

55. (previously presented) The system of claim 54, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

56. (previously presented) The system of claim 55, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

57. (previously presented) The system of claim 53, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band wireless technology and said receivers are structured and configured to receive radio frequency pulses.

58. (previously presented) The system of claim 57, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

59. (previously presented) The system of claim 58, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

60. (currently amended) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, and a Medium Access Control hardware interface comprising a multiplexer/demultiplexer unit and a plurality of slot allocation units, said multiplexer/demultiplexer unit operatively coupled to said plurality of slot allocation

units, and ~~The system of claim 51, further comprising~~ a frame definition having a master slot, a command slot, and a plurality of data slots, said master having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol.

61. (previously presented) The system of claim 60, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses.

62. (previously presented) The system of claim 61, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

63. (previously presented) The system of claim 62, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

64. (previously presented) The system of claim 60, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band wireless technology and said receivers are structured and configured to receive radio frequency pulses.

65. (previously presented) The system of claim 64, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

66. (previously presented) The system of claim 65, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further

comprising a master clock therein, each said local clock synchronized with said master clock.

67. (currently amended) The system of claim 52 [[51]], wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses.

68. (previously presented) The system of claim 67, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

69. (previously presented) The system of claim 68, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

70. (currently amended) The system of claim 52 [[51]], wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band wireless technology and said receivers are structured and configured to receive radio frequency pulses.

71. (previously presented) The system of claim 70, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

72. (previously presented) The system of claim 71, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

73. (currently amended) The system of claim 52 [[51]], wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

74. (previously presented) The system of claim 73, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

75. (currently amended) The system of claim 52 [[51]], wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

Claims 76-87 (cancelled)

88. (previously presented) The system of claim 73, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses.

89. (previously presented) The system of claim 88, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

Claims 90-92 (cancelled)

93. (previously presented) An ultra-wideband wireless communication network system, comprising:

at least three transceivers, one of which is structured and configured as a master device to manage data transmission between said transceivers;

a transmitter in each said transceiver;

a receiver in each said transceiver; and

a Medium Access Control unit including a Physical layer interface, a multiplexer/demultiplexer unit operatively coupled to said Physical layer interface, a plurality of slot allocation units operatively coupled to said multiplexer/demultiplexer, an interface to higher level protocols operatively coupled to said plurality of slot allocation units.

94. (previously presented) The system of claim 93, wherein said master device includes a time division multiple access frame definition and a framing control function to frame data transmission between said transceivers.

95. (previously presented) The system of claim 94, wherein said transceivers operate according to a time division multiple access frame definition to synchronize said network system.

96. (previously presented) The system of claim 95, wherein each said transceiver further comprises:

(a) a data modulator; and

(b) a data demodulator.

97. (previously presented) The system of claim 96, further comprising a time division multiple access frame structure having a master slot, a command slot, and a plurality of data slots.

98. (previously presented) The system of claim 93, wherein said transceivers operate according to a time division multiple access frame definition to synchronize said network system.

99. (previously presented) The system of claim 98, wherein each said transceiver further comprises:

- (a) a data modulator; and
- (b) a data demodulator.

100. (previously presented) The system of claim 99, further comprising a time division multiple access frame structure having a master slot, a command slot, and a plurality of data slots.

101. (previously presented) The system of claim 100, wherein each said transceiver further comprises:

- (a) a data modulator; and
- (b) a data demodulator.

102. (previously presented) The system of claim 100, further comprising a time division multiple access frame structure having a master slot, a command slot, and a plurality of data slots.

103. (previously presented) The system of claim 93, further comprising a time division multiple access frame structure having a master slot, a command slot, and a plurality of data slots.

Claims 104-105 (cancelled)

106. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and said master device structured and configured to manage data transmission between said transceivers, wherein each said transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transceivers operate according to a Medium Access Control protocol having a time division multiple access frame definition, said protocol structured and configured to operate in aloha mode and time division multiple access mode, said system further comprising a frame definition having a master slot, a command slot, and a plurality of data slots, said master device having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol, and a Medium Access Control hardware interface comprising a multiplexer/demultiplexer unit and a plurality of slot allocation units, said multiplexer/demultiplexer unit operatively coupled to said plurality of slot allocation units.

107. (previously presented) The system of claim 106, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses.

108. (previously presented) The system of claim 107, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.



109. (previously presented) The system of claim 108, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

110. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, with each transceiver including a Medium Access Control protocol having a time division multiple access frame definition, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, said master device structured and configured to manage direct data transmission between said at least three transceivers, wherein each transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band technology and said receivers are structured and configured to receive said radio pulses.

111. (previously presented) The system of claim 110, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

112. (previously presented) The system of claim 111, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

113. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter

and a receiver, one of said transceivers being structured and configured as a master device, and said master device structured and configured to manage data transmission between said transceivers, wherein each said transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, said system further comprising a frame definition having a master slot, a command slot, and a plurality of data slots, said master device having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol.

114. (previously presented) The system of claim 113, further comprising a Medium Access Control hardware interface comprising a multiplexer/demultiplexer unit and a plurality of slot allocation units, said multiplexer/demultiplexer unit operatively coupled to said plurality of slot allocation units.

115. (previously presented) The system of claim 114, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses.

116. (previously presented) The system of claim 115, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

117. (previously presented) The system of claim 116, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

118. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, wherein each said transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transceivers operate according to a Medium Access Control protocol having a time division multiple access frame definition, said protocol structured and configured to operate in aloha mode and time division multiple access mode, and further, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band wireless technology and said receivers are structured and configured to receive radio frequency pulses.

119. (previously presented) The system of claim 118, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

120. (previously presented) The system of claim 119, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

121. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said

transceivers, wherein each said transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, said system further comprising a Medium Access Control hardware interface comprising a multiplexer/demultiplexer unit and a plurality of slot allocation units, said multiplexer/demultiplexer unit operatively coupled to said plurality of slot allocation units.

122. (previously presented) The system of claim 121, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses.

123. (previously presented) The system of claim 122, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

124. (previously presented) The system of claim 123, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

125. (previously presented) The system of claim 121, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band wireless technology and said receivers are structured and configured to receive radio frequency pulses.

126. (previously presented) The system of claim 125, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

127. (previously presented) The system of claim 126, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

128. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, with each transceiver including a Medium Access Control protocol having a time division multiple access frame definition, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, wherein each said transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses, and further wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

129. (previously presented) The system of claim 128, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

130. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, with each transceiver including a Medium Access Control protocol having a time division multiple access frame definition, each

said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, said master device structured and configured to manage direct data transmission between said at least three transceivers, wherein each transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band technology and said receivers are structured and configured to receive said radio pulses.

131. (previously presented) The system of claim 130, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

132. (previously presented) The system of claim 131, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

133. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, with each transceiver including a Medium Access Control protocol having a time division multiple access frame definition, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, said master device structured and configured to manage direct data transmission between said at least three transceivers, wherein each transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network

system, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

134. (previously presented) The system of claim 133, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

135. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and said master device structured and configured to manage data transmission between said transceivers, wherein other transceivers of said at least three transceivers being structured and configured as slave transceivers, each of said slave transceivers further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized to said master clock, wherein said transceivers operate according to a Medium Access Control protocol structured and configured to operate in aloha mode and time division multiple access mode, said system further comprising a frame definition having a master slot, a command slot, a plurality of data slots, said master device having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers structured and configured to receive radio frequency pulses, and further wherein said transceivers are structured and configured to transfer data to other transceivers isochronously.

136. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock, wherein said transceivers operate according to a Medium Access Control protocol having a time division multiple access frame definition, said protocol structured and configured to operate in aloha mode and time division multiple access mode, said system further comprising a frame definition having a master slot, a command slot, and a plurality of data slots, said master having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol, and further, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band wireless technology and said receivers are structured and configured to receive radio frequency pulses.

137. (previously presented) The system of claim 136, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

138. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said



local clock synchronized with said master clock, said system further comprising a frame definition having a master slot, a command slot, and a plurality of data slots, said master having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses, and further, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

139. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock, said system further comprising a frame definition having a master slot, a command slot, and a plurality of data slots, said master having a master sync code, a protocol operating in slotted aloha mode and time division multiple access mode, said master device managing said protocol and said data slots in said protocol, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band wireless technology and said receivers are structured and configured to receive radio frequency pulses.

140. (previously presented) The system of claim 139, wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously.

Claims 141-143 (cancelled)

144. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, said master device structured and configured to manage direct data transmission between said at least three transceivers, wherein each transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band technology and said receivers are structured and configured to receive said radio pulses, and wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously, and wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

145. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, and master device structured and configured to manage data transmission between said transceivers, wherein each said transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transmitters are structured and configured to emit radio frequency pulses operating with baseband wireless technology and said receivers are structured and configured to receive radio frequency pulses, and further wherein said

transceivers are structured and configured to transfer data to other said transceivers isochronously, and wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

146. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, said master device structured and configured to manage direct data transmission between said at least three transceivers, wherein each transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transmitters are structured and configured to emit radio frequency pulses operating with ultra-wide band technology and said receivers are structured and configured to receive said radio pulses, and wherein said transceivers are structured and configured to transfer data to other said transceivers isochronously, and wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.

147. (previously presented) An ultra-wideband wireless communication network system comprising at least three transceivers, each said transceiver having a transmitter and a receiver, one of said transceivers being structured and configured as a master device, said master device structured and configured to manage direct data transmission between said at least three transceivers, wherein each transceiver further comprises a framing controller, said framing controller having means for generating and maintaining time frame information for said network system, wherein said transceivers are structured and

configured to transfer data to other said transceivers isochronously, and wherein each said slave transceiver further comprises a local clock therein, said master transceiver further comprising a master clock therein, each said local clock synchronized with said master clock.